

WHAT IS CLAIMED IS:

1. An image coding apparatus comprises:

a pixel value changing section for changing a pixel

5 value of a current pixel in an image data;

an error distributing section for distributing an  
error value produced in the pixel value changing section  
to neighbour pixels; and

an image coding section for coding the pixel value  
10 which is changed by the pixel value changing section,

wherein the pixel value changing section changes the  
pixel value so as to reduce a code quantity in the image  
coding section.

15 2. The apparatus according to claim 1, wherein the  
image coding section employs lossless coding.

3. The apparatus according to claim 1, wherein the  
image coding section employs predictive coding.

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4. The apparatus according to claim 1, wherein the  
error distributing section distributes an error by an  
error diffusion method.

25 5. The apparatus according to claim 1, wherein the

error distributing section distributes an error by a minimum average error method.

6. The image coding apparatus claim 1, wherein the  
5 pixel value changing section does not perform a change which produces an error that is not less than a predetermined value.

7. The apparatus according to claim 1, wherein  
10 after the pixel value change is performed on a whole of the image data, the image coding section performs coding.

8. The apparatus according to claim 1, wherein the image coding section comprises:

15 image inputting means for inputting an image;

plural pixel value predicting means for predicting a pixel value of a current pixel which is in an image input from the image inputting means and which is an object to be coded by different predicting techniques;

20 prediction error calculating means for calculating an error between the pixel value of the current pixel which is in the image input from the image inputting means and a predicted value which is predicted by a predetermined predicting technique;

25 coincidence judging means for judging whether each of

the pixel values which are respectively predicted by the plural pixel value predicting means coincides with the pixel value of the current pixel;

selecting means for, on the basis of a judgement  
5 output of the coincidence judging means, outputting one of identification information for identifying pixel value predicting means of which the predicted pixel value is judged by the coincidence judging means to attain coincidence and the error which is calculated by the  
10 prediction error calculating means;

error coding means for coding the identification information and the error which are output by the selecting means; and

outputting means for outputting a code which is coded  
15 by the coding means.

9. An image coding and decoding apparatus comprising:

a pixel value changing section for changing a pixel  
20 value of a current pixel in an image data;

an error distributing section for distributing an error value produced in the pixel value changing section to neighbour pixels;

an image coding section for coding the pixel value  
25 which is changed by the pixel value changing section; and

an image decoding section for decoding the code of  
the image coding section,

wherein the pixel value changing section changes the  
pixel value so as to reduce a code quantity in the image  
5 coding section.

10. An image coding method comprising the steps of:  
changing a pixel value of a current pixel in an image  
data;

10 distributing an error value produced in the pixel  
value changing step to neighbour pixels; and

coding the pixel value which is changed by the pixel  
value changing step,

wherein in the pixel value changing step, the pixel  
15 value is changed so as to reduce a code quantity in the  
image coding step.